CHAPTER 2

Making Literacy Meaningful for Everyone in Inclusive Elementary Classrooms

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Find out how technology can be used to create group literacy experiences, create individualized guided activities, and foster independent practice of skills.

Literacy is defined often as the ability to read and write. Many students with complex needs are unable to meet the goals of a traditional literacy curriculum. Without specialized support, they may not be able to access literacy instruction and materials. When thinking about literacy instruction, it is important to think about the reasons behind reading and writing. By thinking of literacy as a means to communicate information for a social purpose, we are able to think about ways to modify activities for students with different challenges (Miles, 2005).

Providing engaging literacy materials to these students can be challenging. Age appropriate materials are limited. Often, these students are left with age inappropriate, commercially available materials that were created for very young children—and even these are in short supply. This can lead teachers to provide their students with the same materials year after year.

As educators, our goal must be to make literacy interesting and appropriate for all students. We need to expand their access to appropriate materials and

to engage them with text and literature. One way that we can do this is to adapt available literacy materials and/or create our own and to make use of already existing resources. In doing this, we can create a literacy unit that contains a variety of activities, with different modes of engagement, while teaching a variety of skills to each student. Technology helps us put books into our students' hands. Our goal is to create a well-rounded literacy curriculum that includes opportunities for students to engage with peers, work on individualized skills, and benefit from independent practice.

There are several areas to explore:

- Creating group literacy experiences, including reading aloud to students.
- Creating individualized guided literacy activities that include appropriate small group or individual activities to meet individual reading goals.
- Fostering independent practice of all reading skills.

This chapter will explore how technology tools can enhance each of these areas. The tools that can create a motivating literacy experience may be low tech or high tech. Making a simple modification to a book—such as making the pages easier to turn—can give some students the opportunity to be independent. Other times, it may be necessary to explore higher tech options to help increase student independence and active engagement.

Creating Group Literacy Experiences

One of the most important aspects in creating appropriate group reading experiences is ensuring that all students are able to engage with the text being presented. Within a general education elementary classroom, students often sit on the rug while a teacher reads a story to the class. Most of these students are able to listen to the teacher reading the story, and they are able to see the pictures in the picture book. There are various reasons that some students may have difficulties engaging during these times. A student may not be able to sustain attention to a book and/or to a reader who is not close to him or her. A student with visual or hearing impairments may have physical barriers to engaging with the lesson. Also, students with physical needs may be unable to see the materials presented because they are unable to position themselves appropriately.

It also is necessary to consider students' cognitive needs. Some students may need support in order to understand the content of the story. Students with cognitive challenges may need a way to communicate ideas during a lesson. It is important to provide students who are nonverbal or who may have challenges expressing ideas with a voice. At times, it may be necessary to provide students with smaller group opportunities in order to maximize their attention and active engagement.

Many modifications serve to enhance the literacy experience for all students. The most important consideration for a reading lesson is to ensure that all students have appropriate access to the text. There are several ways that this can be accomplished by using a variety of methods at different times. It also may help to provide a preview of some vocabulary or elements in the story. Here are some ideas to provide access to the text:

- **Provide an extra copy of the book**. This accommodation provides a student close-up access to the content of the lesson. If it is appropriate, a peer in the class also can look at the book and provide the student with support for turning the pages. If needed, a teaching assistant or another adult can help manage the extra copy of the book.
- **Project the book onto a screen**. Many classrooms are equipped with a document camera such as an Elmo (**www.elmousa.com**). Using this to project a book onto a large screen enhances the reading experience for the whole class and may eliminate the need for extra copies. This works best for students who are better at sustaining attention to a large-group lesson but who may have difficulty seeing the book.
- **Create an outline with picture cues**. Sometimes it may not be possible to make the book more accessible. In this case, it may be appropriate to create a picture outline of the story. This can give

students a visual cue while listening to the story, and therefore help them maintain attention to the content presented rather than looking around at the environment. Figure 1 shows a picture outline for the book *Pancakes, Pancakes* that was part of a lesson (for a description of the lesson, see Appendix 1, "A Literacy Unit: *Pancakes, Pancakes* by Eric Carle").

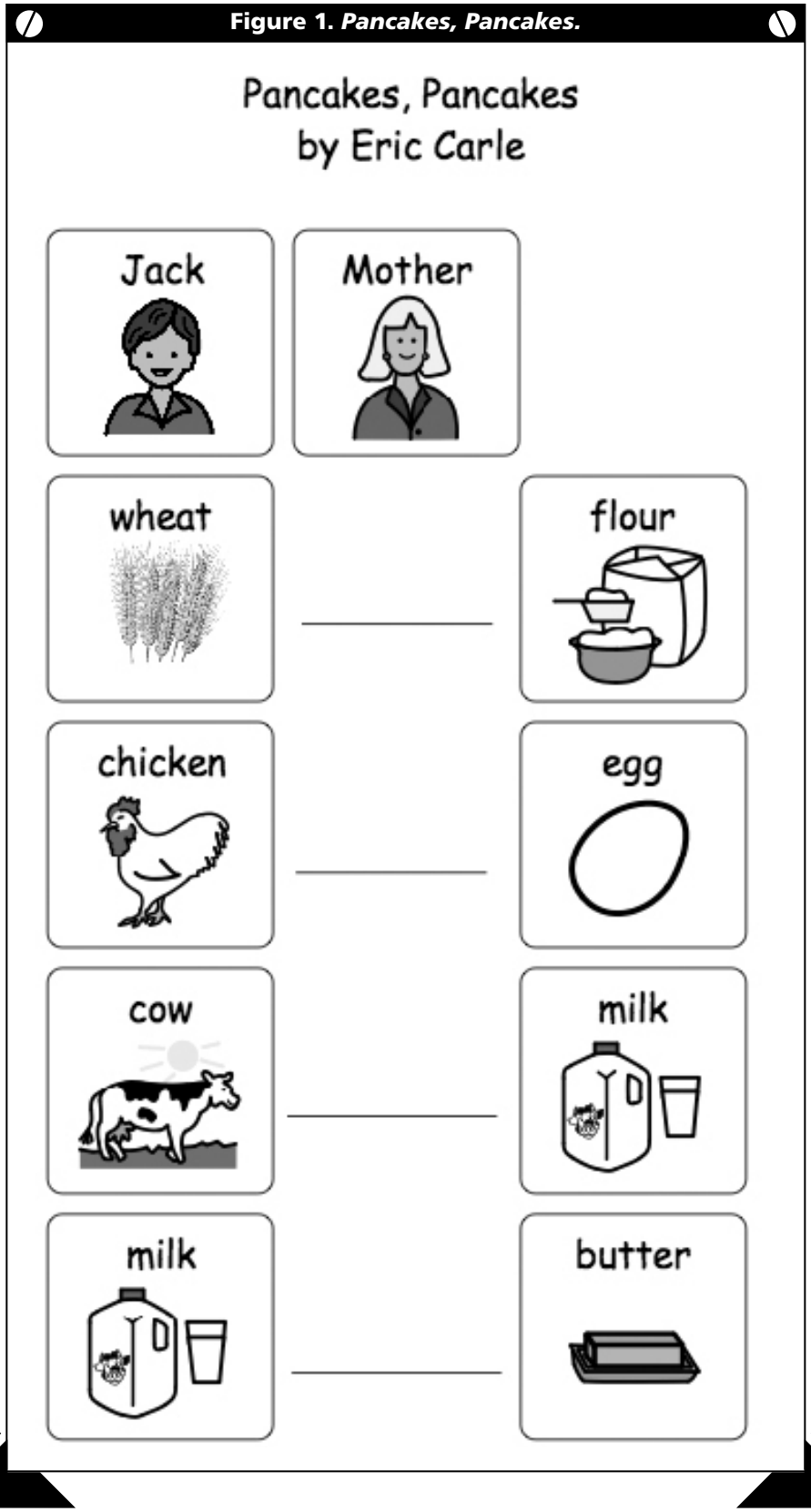
Creating Individualized Guided Literacy Activities

Using a motivating text as a basis for literacy activities can help enhance student engagement and motivation. Deciding what to teach should be based on the individual literacy goals for each student and can incorporate comprehension and vocabulary lessons, phonics lessons, reading, or even writing lessons.

When planning more individualized activities, consider students' cognitive needs and ensure that all materials are physically accessible. It also may be necessary to find additional texts on related topics or create a simple and accessible text to enhance the lesson. It may be appropriate to provide a modified text or book that students can use later for independent practice.

It may be necessary to read the same text or do the same activity many times in order to keep some students engaged with the content. Individual literacy activities should be presented in a variety of access modes so that

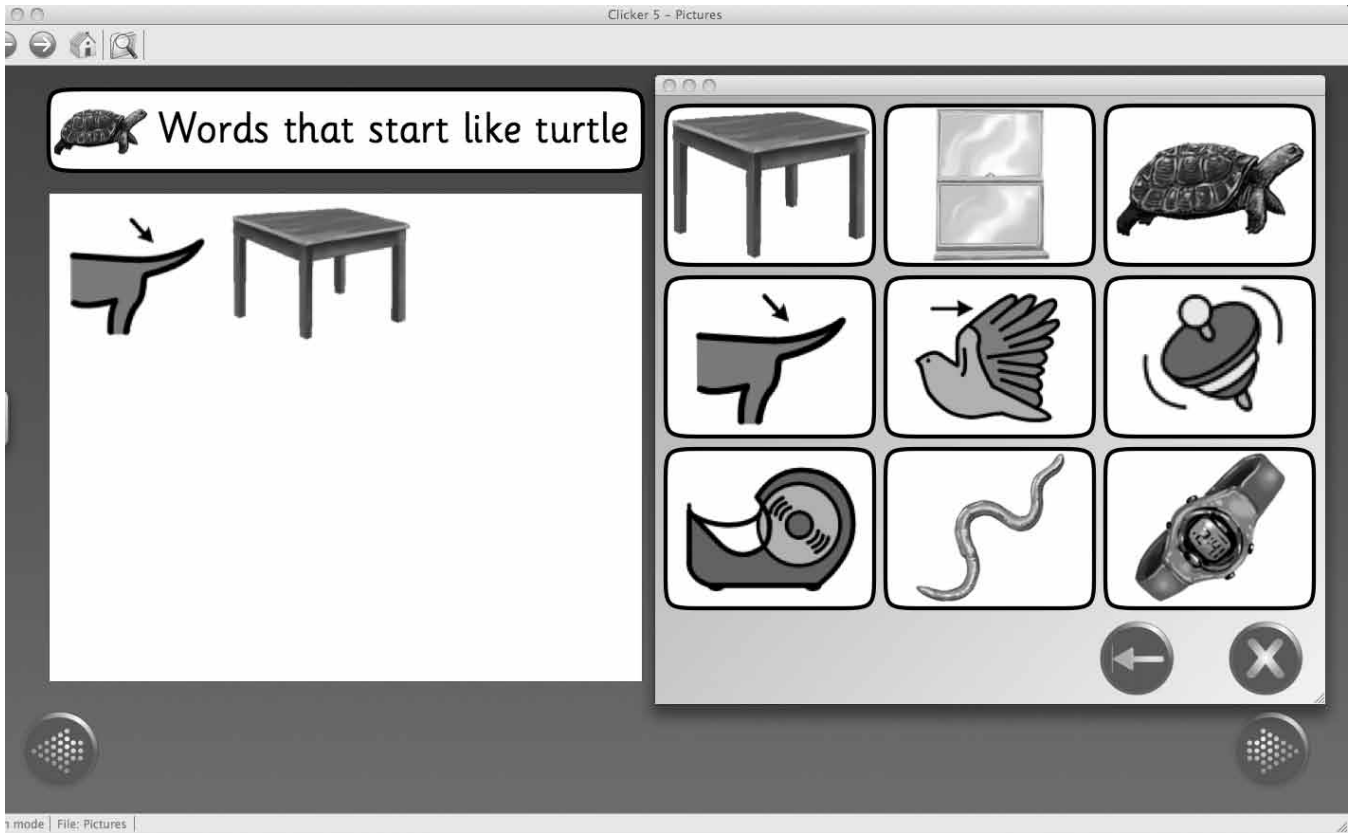
Figure 1. *Pancakes, Pancakes.*



students are motivated to remain engaged with the content. Students might listen to the text read by a teacher or a peer, and then access the same text in an electronic format on the computer (see the textbox, "Technology Resources," for examples of tools that can help with this). Electronic text might be enhanced with such supports as additional pictures or symbols to support comprehension or a glossary option for challenging words. Animations may be added to electronic text to engage students and enhance comprehension. If available, students also may be provided the opportunity to listen to the audio book version. By providing students with a variety of ways to engage with the same material, they will continue to be motivated.

Creating motivating and accessible phonics and spelling activities can be challenging. Again, it may be necessary to provide students with various ways to engage with appropriate content. One method commonly used to teach a lesson on initial sounds is matching pictures to words that all start with a different consonant sound. Rather than create an activity with random vocabulary, teachers can pull vocabulary from a familiar text to make the activity more exciting and increase student attention. Phonics lessons should be individualized to target the specific skills students are working on. It also is beneficial to create additional activities with different modes of engagement to provide independent practice when possible. For example, after completing a picture to word matching activity within a group on a slant board, students may have the opportunity to try a similar activity on an interactive white board. A similar activity also can be

Figure 2. *Clicker 5* example.



created using specialized software such as Clicker 5 or Boardmaker Plus! (see Figure 2) where the student can type or match the initial letter to a picture). Students who need multiple repetitions to practice and master a skill will benefit from demonstrating skills in different ways. This also can be used to assess students' independent skills and mastery of a concept. A variety of ways to enhance lessons with technology tools follows.

Technology Resources

Get Help! Don't reinvent the wheel

These are just a few of the resources available. It may be best to pick just a few tools at first. Becoming more familiar with them will make implementing lessons easier.

Always get help where you can. Creating all of your own activities can be very time consuming. Listed below are some helpful software applications and great places to get additional resources.

Boardmaker Plus! v6

(www.mayer-johnson.com). Use Boardmaker to create printable communication boards. Create interactive computer-based activities including worksheets, books, writing activities, and games. These are great to project on an interactive board. Many activities are available to download at **www.boardmakershare.com**.

Clicker 5 and Clicker Paint

(www.cricksoft.com). These are great when used together. Use Clicker 5 to create books, writing activities, interactive worksheets, and vocabulary activities. Students can demonstrate comprehension by creating illustrations using Clicker Paint. There are many activities available to download at **www.learninggrids.com//us**.

Intellitools Classroom Suite 4

(www.intellitools.com). Use Classroom Suite 4 to create books, writing activities, interactive worksheets, math activities, and vocabulary activities. Activity templates within the software are designed to make creating individualized activities simple. There are many activities available to download at the Classroom Suite Activity Exchange at **http://aex.intellitools.com**.

Readinga-z.com and Raz-Kids.com

(www.readinga-z.com). **Readinga-z.com** and **Raz-Kids.com** are subscription-based websites. **Readinga-z.com** provides books, worksheets, and lesson plans for leveled reading. Books on various fiction and nonfiction topics can be downloaded. On **Raz-Kids.com** students can engage with online books. Students can listen to the books, read the books, and answer comprehension questions. This is a great place to get additional books for a literacy unit.

Tar Heel Reader

(http://tarheelreader.org). Tar Heel Reader provides a collection of free, easy-to-read, and accessible books. It is a good place to get books that students can read individually. It also is a forum where you can publish books that you have written with your students.

Accessible Book Collection

(http://accessiblebookcollection.org). The Accessible Book Collection is a subscription-based resource where trade books can be downloaded. Students must qualify in order to join. They must have a vision impairment or another disability. Most books are available in HTML format. There are some books available in various formats including Boardmaker Plus!, Clicker 5, and Intellitools Classroom Suite. This is a nice way to make books available for independent reading times.

Use Communication Boards

Communication boards are much more than tools for expressive communication. Communication boards can be valuable tools even for students who have acquired a high level of verbal language. They can serve as receptive tools to aid students with vocabulary and comprehension. A teaching assistant or a peer can help by pointing to main ideas while the teacher is reading a story.

In addition, students also can use the boards as tools to help with word retrieval. The picture supports can help students learn less familiar vocabulary by labeling a specific word that may not be clearly defined within the text. For example, some books may present unfamiliar animals or objects in the text, and the text pictures may be too busy and/or too complicated for students to find the target vocabulary. The communication boards can label the pictures in a simple format. It also may be beneficial to put pictures directly from the text paired with real photos to help enhance vocabulary learning.

Communication boards can be used to help students begin exploring more abstract concepts in a book. These boards may include vocabulary related to other concepts in the books and they can be created to target a specific topic such as character feelings, theme of a story, or personal connections. A board related to character feelings can provide students with vocabulary choices for a variety of appropriate and inappropriate character emotions. Using the text, students can explore and discuss how different characters are feeling in relation to different events in the book. Vocabulary lists may encourage students to think about less familiar emotions. This is particularly successful for students who always jump to the same conclusion such as "happy" or "sad."

As students explore different concepts about a text, they may have several different boards that are connected to the same book. They may have a simple board that enhances comprehension and a different board later on when they are exploring more complex ideas. Think of these boards as both expressive tools and receptive tools that are helping to guide student thinking. See Figure 3 for an example of an activity from a lesson based on the book, *Worm Builds*. [See Appendix 2, "A Literacy Unit: *Worm Builds* by Kathy Caple," for an example of the lesson.]

Use Picture Cards from the Book

Another accommodation for comprehension lessons is to take several photos of the book. Students can organize these pictures in the correct order to demonstrate understanding of beginning, middle, and end. They also can use them as a tool to answer questions about the story.

Use Book Vocabulary for Phonics and Handwriting

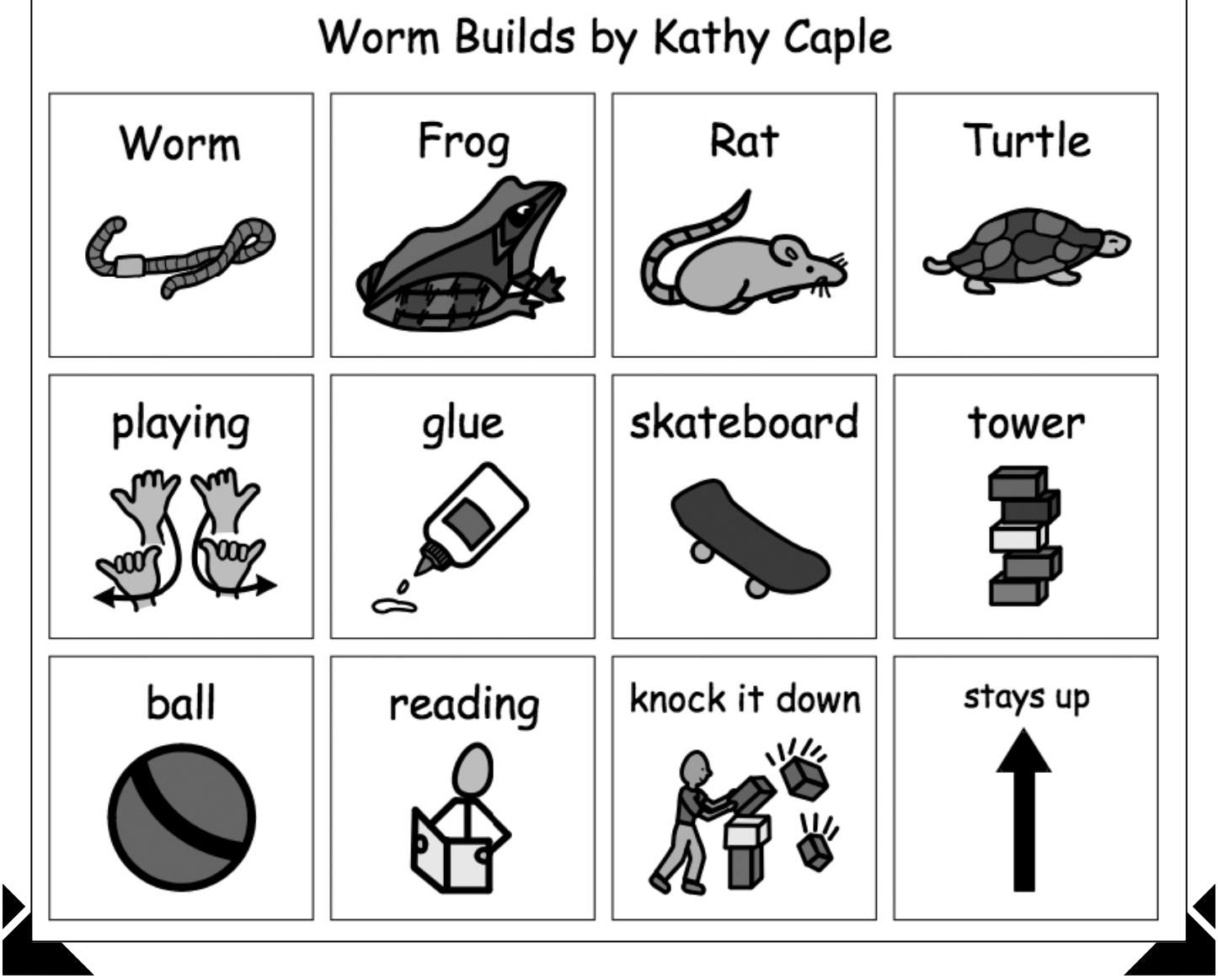
Using a few familiar words from the book as the basis for a phonics activity can motivate students. Vocabulary cards can be created from photos, line drawings (using software such as Boardmaker), or even the props used when reading the book. A picture sort or a picture-word match activity can be created using authoring software such as Clicker5 using the pictures from the book, photos, or line drawings that are used when reading the text. Practicing writing initial letters or words of a familiar character or object from the story can enhance vocabulary development while also working on mechanical handwriting skills. Handwriting also can be practiced using an electronic white board with photos and pictures from the text to enhance engagement. See Figure 4 for an example.

Create Books Together

Working together to create a book can provide a valuable reading and writing lesson. Taking pictures when acting out a text or doing an extension activity can provide the basis for a self-created book. The pictures also can be printed and the book can be created as a table activity. The pictures also can be imported into presentation software or educational software to create an electronic book.

Using software can provide students with the opportunity to practice

Figure 3. *Worm Builds* example.



writing and/or reading text and even recording their own voices into the computer. They can listen to themselves reading and practice increasing their reading fluency. During this process teachers can address various literacy skills such as identifying vocabulary, putting words in the correct order, or writing high frequency words. Students can create books at their independent reading levels. Depending on students' abilities, it may be appropriate to create books with only one word on each page, using simple pictures or symbols. It also may be helpful to pair the pictures with small objects. These books can then be used for independent practice activities.

Use Props

Props can be a fun way for students to express story comprehension. Students can use the props to retell the story or answer various comprehension questions. Props can be used by students to explore more abstract concepts in a book such as understanding character feelings, exploring

Figure 4. Example of using an electronic white board.

the problem posed in the story, or predicting events in the story. For young children, keep the props available during free times so that they can use them for pretend play activities. Students naturally retell stories that are familiar.

Provide Other Texts on Similar Topics

It may be beneficial to provide students access to additional texts on related topics. These texts could be more appropriate to their cognitive levels. For example, creating a vocabulary book with target words may be helpful. For some students, a book with only one word in large print on each page may be necessary.

Fostering Independent Reading

An important goal of literacy instruction is fostering a love of independent reading. Students who have been taught to enjoy books typically enjoy reading them repeatedly.

For many students with disabilities, the goal of independence is often an afterthought. Literacy experiences are often initiated and guided by an adult. Providing students with rich literacy experiences can motivate them to practice the skills on their own without adult support.

A major challenge when working with students with disabilities involves finding accessible books. It may be necessary to expand the idea of independent reading to a variety of literacy activities. The challenge is to provide as many opportunities as possible and access to as much repetition as possible. It is important to

Making Accommodations and Modifications to Books

Physical Needs

- Page fluffers (use a paper clip to affix a small piece of foam to make pages easier to turn).
- Laminate the pages.
- Put the pages into page protectors.
- Use a stand to hold the book.
- Create an electronic book.

Visual Needs

- Enlarge the text.
- Simplify the pictures (e.g., remove backgrounds and extraneous items, etc.).
- Add tactual items.

Cognitive Needs

- Simplify the text.
- Add picture symbols.
- Add photos.

maintain a library of familiar books. Keep books nearby, even after the formal teaching of the text has been completed. Rereading familiar stories can provide practice.

Providing independent access to text can be challenging when students are unable to access traditional books at an age-appropriate level. It may be necessary to modify books to make them accessible. When modifying books, the ultimate goal should be for students to engage with them independently. It is necessary to consider physical access to the book, visual needs (both vision and attention related), and students' cognitive needs (see the textbox, "Making Accommodations and Modifications to Books," for examples).

The Center for Literacy and Disability Studies (**www.med.unc.edu/ahs/clds/resources**) provides ideas for creating tactual books. While these books are primarily designed for students with vision impairments, many of the ideas also are beneficial for other students. Adding some tactual elements to a book can help provide a cue for students who are struggling with vocabulary or word retrieval. For example, a cap to a milk container can be placed onto a picture of milk. The same milk cap can be used during a cooking activity so that students become familiar with the materials. It is beneficial if the tactual items placed into a book are similar to the props used during the read aloud so students are familiar with the materials.

Another way to make accommodations and/or modifications to materials is to create an electronic book. An electronic book can be created in specialized software or any presentation software that is readily available such as Microsoft PowerPoint. When creating an electronic book, consider the individual needs of each student and make the necessary changes to the pictures, text size, and content. Make sure students have independent control of the book. When possible, students should be able to turn the pages forward and backward so they can reread their favorite parts. If the book produces audible text-to-speech, students should be able to choose to have the spoken text on or off. Providing a bookshelf from which students can choose preferred books from an array of choices also is beneficial.

Creating lessons that encourage students to take an active and engaged role will help them develop a love of reading. Then, providing them with independent access will give them the ability to read and write for functional purposes and for pleasure.

References

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Pinell, G., & Fountas, I. (2002). *Phonics lessons: Letters, words, and how they work, Grade 1*. Portsmouth, NH: Heinneman.

Appendix 1
A Literacy Unit: *Pancakes, Pancakes* by Eric Carle

Additional Texts

- *Pancakes for Breakfast*, by Tomi DePaola
- *Pancake Song*, by Christina Rossetti
- Any cookbook with photos of pancakes

1. Preview and preteaching

- Cooking class! Make sure that everyone has first hand knowledge about pancakes and make them together. Use a picture recipe to make the pancakes. Take pictures of the process to make a class book. Have a class discussion about what you like on your pancakes.
- Poetry time! Read and act out the *Pancake Song.* This is a great time to practice some high frequency words!
  - ♦ Mix a pancake.
  - ♦ Stir a pancake.
  - ♦ Pop it in the pan.
  - ♦ Fry the pancake.
  - ♦ Toss the pancake.
  - ♦ Catch it if you can.

2. Reading the book

- Have a communication board when reading the books.
- Project the book onto a screen to show the pictures.
- Use props when talking about the story. Most ingredients are readily available.

3. Small-group activities

- Read the book using props. Act out the story.
- Use the props to retell the book and sequence the story. This is a great chance for students to act out the story on their own.
- Leave the props out and available with the book during free play times.
- Practice handwriting the letter P.
- Do a sound sort with /p/ (for pancake) and /j/ (for jam).

4. Individual activities

- Make an electronic version of the book available. A Boardmaker Plus copy is available at **www.accessiblebookcollection.org**
- Sequence the steps for making pancakes using Clicker 5 or Boardmaker Plus.
- Make a vocabulary book about pancake ingredients.

Appendix 2
A Literacy Unit: *Worm Builds* by Kathy Caple

Additional Texts

- *Worm Paints*, by Kathy Caple
- Poem about friendship

1. Preview and preteaching

- Vocabulary book. Make a book with photos of real worms, frogs, turtles, and rats. This is a great activity to do together and work on letter names/sounds, vocabulary, and print awareness skills.
- Poetry time! Read a poem about friendship. Great time to find high frequency words, talk about letter names/sounds, and print awareness skills.

2. Reading the book

- Have communication boards when reading the books. Depending on the lesson, you may want a different board.
- Project the book on a screen to show the pictures.

3. Small-group activities

- Give each student a copy of the book. Make books accessible by using page fluffers or by cutting up the book and laminating it for easy page turning.
- Use props when talking about the story. Make puppets using photos from the book or use stuffed animals.
- Leave the props out and available with the book during free play times.
- Reread the book several times. Teach different lessons:
  - ♦ Practice retelling the book. This is a good chance to act out the story.
  - ♦ Think about the story elements. What is the problem? How does it get fixed?
  - ♦ Think about social play skills. Talk about how the worm is feeling when his tower gets knocked down!
- Make your own book. Take pictures and make a version with the students as the main characters.

4. Individual activities

- Reread individual copies of the book.
- Make an electronic version of the book available. Use Clicker 5 and have students put the sentences in order.
- Make a vocabulary book with words from the book.